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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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ALEXANDRIA, VA 22314

EXAMINER

VON BUHR, MARIA N

ART UNIT	PAPER NUMBER
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2125

DATE MAILED: 03/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/749,999

Applicant(s)

LOF ET AL.

Examiner

Maria N. Von Buhr

Art Unit

2125

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 December 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-184 is/are pending in the application.
- 4a) Of the above claim(s) 10-115, 132-144 and 147-184 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9, 116-131, 145 and 146 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 July 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date (2x) 2001, 2002, 2003.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. Examiner acknowledges receipt of Applicant's response to the previous Office action, received 21 December 2004; which elects claims 1-9, 116-131, 145 and 146 for further examination.

2. Claims 1-184 remain pending in this application.

3. Applicant's election with traverse of Group I, corresponding to claims 1-9, 116-131, 145 and 146, drawn to providing alternative energy to a power grid, in the reply filed on 21 December 2004, is acknowledged. The traversal is on the ground(s) that "the claims of the present invention would appear to be of an overlapping search area." This is not found persuasive because Applicant has provided no support for the statement that the search areas overlap and, as presented in the previous Office action, each of the distinct inventions are classified in different class/subclasses. Therefore, search and examination of each of the groups of claims would constitute a serious burden.

The requirement is still deemed proper and is therefore made FINAL.

4. Accordingly, claims 10-115, 132-144 and 147-184 are withdrawn from consideration pursuant to 37 CFR §1.142(b), as being drawn to a non-elected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement, as noted above, in the reply filed on 21 December 2004.

5. The remainder of this Office action applies to pending claims 1-9, 116-131, 145 and 146.

6. In view of the papers filed 29 December 2000 (i.e.; the list of inventor's names and addresses) and 06 July 2001 (i.e.; the first submission of an executed declaration), it has been found that this nonprovisional application, as filed, through error and without deceptive intent, improperly set forth the inventorship, and accordingly, this application has been corrected in compliance with 37 CFR §1.48(f). The inventorship of this application has been changed by adding Lars Anders Tommy Andren. Office records reflect the inventorship as corrected.

7. Examiner acknowledges receipt of Applicant's information disclosure statements, received 18 September 2001, 14 November 2001, 30 August 2002 and 02 April 2003, with accompanying reference copies, which have been taken into consideration for this Office action.

8. The replacement drawings were received on 06 July 2001. These drawings are not acceptable.
9. Figures 2 and 3 should be designated by a legend such as -- Prior Art --, because only that which is old is illustrated, as evidenced by their description within the Background of the Invention section of the instant specification. See MPEP §608.02(g).
10. Corrected drawings in compliance with 37 CFR §1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR §1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.
11. The specification is objected to, because page 32 includes an incomplete reference to a co-pending application. Correction, including an updated status of this application, is required in response to this Office action.
12. Applicant has incorporated by reference a co-pending application, at page 32 of the specification. Examiner notes that incorporation by reference of an application in a printed United States patent constitutes a special circumstance under 35 U.S.C. §122 warranting that access of the original disclosure of the application be granted. The incorporation by reference will be interpreted as a waiver of confidentiality of only the original disclosure as filed, and not the entire application file, *In re Gallo*, 231 USPQ 496 (Comm'r Pat. 1986). If Applicant objects to access to the entire application file, two copies of the information incorporated by reference must be submitted along with the objection. Failure to provide the material within the period provided will result in the entire application (including prosecution) being made available to petitioner. The Office will not attempt to separate the noted materials from the remainder of the application. Compare *In re Marsh Engineering Co.*, 1913 C.D. 183 (Comm'r Pat. 1913).
13. The incorporation of essential material by reference to a foreign application and/or patent or to a publication inserted in the specification is improper. Applicant has incorporated numerous articles by reference, at pages 2, 6, 8, 9 and 55 of the instant specification. Applicant has also incorporated numerous foreign applications and/or patents by reference, at pages 25 and 30-32 of the instant specification. If, during the prosecution of this application, such material becomes essential to the claims,

Applicant will be required to amend the disclosure to include the material incorporated by reference. The amendment would have to be accompanied by an affidavit or declaration executed by Applicant, or a practitioner representing Applicant, stating that the amendatory material consists of the same material incorporated by reference in the referencing application. *In re Hawkins*, 486 F.2d 569, 179 USPQ 157 (CCPA 1973); *In re Hawkins*, 486 F.2d 579, 179 USPQ 163 (CCPA 1973); *In re Hawkins*, 486 F.2d 577, 179 USPQ 167 (CCPA 1973).

14. Applicant and the assignee of this application are required under 37 CFR §1.105 to provide the following information that Examiner has determined is reasonably necessary to the examination of this application.

- a. In response to this requirement, please provide a copy of each of the items of art (i.e.; foreign applications, foreign patents and numerous publications), referred to in the instant specification, at pages 2, 6, 8, 9, 25, 30-32 and 55, as referred to above in paragraph 12.
- b. In responding to those requirements that require copies of documents, where the document is a bound text or a single article over 50 pages, the requirement may be met by providing copies of those pages that provide the particular subject matter indicated in the requirement, or where such subject matter is not indicated, the subject matter found in Applicant's disclosure.
- c. The fee and certification requirements of 37 CFR §1.97 are waived for those documents submitted in reply to this requirement. This waiver extends only to those documents within the scope of this requirement under 37 CFR §1.105 that are included in Applicant's first complete communication responding to this requirement. Any supplemental replies subsequent to the first communication responding to this requirement and any information disclosures beyond the scope of this requirement under 37 CFR §1.105 are subject to the fee and certification requirements of 37 CFR §1.97.
- d. Applicant is reminded that the reply to this requirement must be made with candor and good faith under 37 CFR §1.56. Where Applicant does not have or cannot readily obtain an item of required information, a statement that the item is unknown or cannot be readily obtained may be accepted as a complete reply to the requirement for that item.
- e. This requirement is an attachment of the enclosed Office action. A complete reply to the enclosed Office action must include a complete reply to this requirement. The time period for reply to this requirement coincides with the time period for reply to the enclosed Office action.

15. The following is a quotation of the second paragraph of 35 U.S.C. §112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which Applicant regards as his invention.

16. Claims 1-9, 116-131, 145 and 146 are rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention.

a. In claims 1 and 145, the phrase “premier power” has no clear metes and bounds, because no clear definition for such term has been provided for, neither in the claims nor the instant specification. One having ordinary skill in the art would not be able to determine the scope of such claim terminology. Also, the body of the claim has no clear nexus with the preamble language “converting electrical power produced from a renewable energy power production facility.” In other words, such posed task is not actually accomplished by the body of the claim, which presents ambiguity with regard to the metes and bounds of the claim, as a whole.

b. In claims 4 and 5, ambiguity remains with regard to the definition of and metes and bounds for the claim terminology “premier power.” Furthermore, the step of “converting said high voltage DC into premier power at a standard frequency” appears to merely re-iterate the posed task of the preamble, without more. This presents ambiguity with regard to how such a task is actually performed, and does not provide any clear metes and bounds for the method, since it seems to merely be a statement of desired result, without any support within the claim as a whole. One having ordinary skill in the art would not be able to determine the metes and bounds of this claim, be analogy with a single means claim, since it appears to encompass any and all manner of accomplishing the posed task of converting power into “premier power.”

c. In claim 6, there is no clear and proper antecedent basis for “said co-active converter.”

d. In claims 116 and 146, there is no clear nexus between the body of the claim and the part of the preamble language which asserts implementation of “a virtual energy storage mechanism.” In other words, such posed task is not actually accomplished by the body of the claim, which presents ambiguity with regard to the metes and bounds of the claim, as a whole.

e. In claim 118, there is no clear and proper antecedent basis for “said balance.”

f. The remainder of the claims stand rejected as necessarily incorporating the above-noted ambiguities of their parent claims.

16. Claims 2 and 117 are objected to, because "being" (each occurrence) should be changed to -- is --, in order to correct for improper grammar.

17. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

18. A timely filed terminal disclaimer in compliance with 37 CFR §1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR §1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR §3.73(b).

19. Claims 121 and 125 are rejected under the judicially created doctrine of double patenting over claims 1, 2, 4 and 11 of U. S. Patent No. 6,512,966 since the claims, if allowed, would improperly extend the "right to exclude" already granted in the patent.

The subject matter claimed in the instant application is fully disclosed in the patent and is covered by the patent since the patent and the application are claiming common subject matter. In this case, claims 1, 2, 4 and 11 of U.S. Patent No. 6,512,966 contain every element of the body of claims 121 and 125 of the instant application. The only difference between the instant claims and those of the patent is the language used in the preambles. However, as noted above in the 35 U.S.C. §112, second paragraph, rejection of the claims (paragraph 15, above), the instant claims provide no nexus between the instant preambles and the instant bodies of the claims, hence such preambles can carry no patentable weight. Accordingly, claims 1, 2, 4 and 11 of U.S. Patent No. 6,512,966 are deemed to anticipate claims 121 and 125 of the instant application.

Furthermore, there is no apparent reason why Applicant was prevented from presenting claims corresponding to those of the instant application during prosecution of the application which matured into a patent. See *In re Schneller*, 397 F.2d 350, 158 USPQ 210 (CCPA 1968). See also MPEP §804.

20. Claims 116-131 and 146 are provisionally rejected under the judicially created doctrine of double patenting over claims 15-30 of co-pending U.S. Application Serial No. 09/881,001 (published as US 2002/0103745 A1). This is a provisional double patenting rejection since the conflicting claims have not yet been patented.

The subject matter claimed in the instant application is fully disclosed in the referenced co-pending application and would be covered by any patent granted on that co-pending application since the referenced co-pending application and the instant application are claiming common subject matter. In this case, claims 15-30 of U.S. Application Serial No. 09/881,001 contain every element of claims 116-131 and 146 of the instant application and as such anticipate claims 116-131 and 146 of the instant application.

Furthermore, there is no apparent reason why applicant would be prevented from presenting claims corresponding to those of the instant application in the other copending application. See *In re Schneller*, 397 F.2d 350, 158 USPQ 210 (CCPA 1968). See also MPEP §804.

21. The following is a quotation of the appropriate paragraphs of 35 U.S.C. §102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

22. Claims 1-5, 9, 116-119, 129-131, 145 and 146 are rejected under 35 U.S.C. §102(b) as being clearly anticipated by Jeppson (U.S. Patent No. 4,035,659), which discloses “generating stations which each have a rotary voltage step-up mechanism integrated with an inertial energy storage device are connected in series through a transmission line to produce high-voltage utility electrical power from distributed primary energy sources, such as arrays of solar energy panels, wind-driven generators or the like, which may be intermittent. Each station in the series may include an elevated generator supported on insulative structure and operating at the high-voltage level of the transmission line to add an increment of voltage and power to the line. The generator is driven through an insulative drive shaft by a motor operated from the nearby primary energy sources. Each station further includes a massive flywheel secured to the drive shaft assembly that links the generator and motor in order to store locally developed energy during periods of excess supply whereby energy may be continued to be delivered to the transmission line during periods of diminished supply or to meet demand peaks” (see the abstract). See

also, col. 2, lines 11-33; col. 2, line 50 - col. 3, line 65; col. 4, line 22 - col. 5, line 7; col. 5, line 32 - col. 8, line 25; col. 10, line 3 - col. 11, line 45.

Particularly as per claims 1-3, 9 and 145, the posed task of the preamble; namely, the conversion of electrical power produced from the renewable energy power production facility into "premier power," carries no patentable weight, because as noted above in the 35 U.S.C. §112, second paragraph, rejection of the claims (paragraph 15, above), the instant claims provide no nexus between the preamble and the body of these claims. Further as per claims 4 and 5, since no definition has been provided for "premier power," such is deemed to "read-on" the accumulated power of the system taught by Jeppson, when it is provided to the power grid.

23. The following is a quotation of 35 U.S.C. §103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

24. Claim 6 is rejected under 35 U.S.C. §103(a) as being unpatentable over Jeppson (U.S. Patent No. 4,035,659) in view of Lauw (U.S. Patent No. 5,028,804), which discloses an "energy conversion generation system receives energy from a resource and converts the energy into electrical power for supply to a polyphase electric power grid operating at a system frequency. A prime mover driven by the resource energy and a converter, such as a power electronic converter, for produces excitation power from power received from a converter power source. A brushless doubly-fed generator has a rotor with rotor windings and a stator with stator windings comprising first and second polyphase stator systems. The rotor is driven by the prime mover. The first stator system supplies the electrical power to the grid, and the second stator system receives the excitation power from the converter. A sensor senses a parameter of the electrical power output supplied to the grid and produces a sensor signal corresponding to the sensed parameter. A controller controls the converter in response to the sensor signal" (see the abstract).

It would have been obvious, to one having ordinary skill in the art, at the time the instant invention was made, to utilize such a prime mover, as taught by Lauw, in the system of Jeppson, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

25. Claims 7 and 8 are rejected under 35 U.S.C. §103(a) as being unpatentable over Jeppson (U.S. Patent No. 4,035,659) in view of Degenef et al. (U.S. Patent No. 5,604,423), which disclose a “tap changing system for operation with a transformer and featuring a special group of gate-controlled electronic devices that operate as a circuit breaker and recloser such that, after half-cycle of short-circuit current, said special group is transferred to the OFF-state, whereby the tap changer winding is open circuited; the advantage being that only the special group of devices need be rated to sustain short-circuit conditions; a further feature is the concept of Discrete-Cycle Modulation (DCM) whereby tap voltage magnitudes are obtainable in increments intermediate the physical tap winding voltage magnitudes” (see the abstract), wherein “tap changing is used extensively in a wide variety of electrical inductive apparatus such as AC voltage regulating transformers, HVDC rectifier and inverter transformers and phase angle regulators to adjust the devices turns ratio or phase angle while the-device is serving load. Most of the tap changing methods in use utilize a switching means to alternately connect various sections of one winding of the electrical inductive apparatus into a circuit. One extensively used switching means is a mechanical contact switch in which a movable contact selectively engages stationary contacts connected to various sections of the winding so as to connect varying numbers of turns into the circuit. This methodology is at present used to the virtual exclusion of all other methods in large power apparatus” (see at least, cols. 1-3)

It would have been obvious, to one having ordinary skill in the art, at the time the instant invention was made, to utilize such tap-changing, as taught by Degenef et al., in the system of Jeppson, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

26. Claims 120 and 128 are rejected under 35 U.S.C. §103(a) as being unpatentable over Jeppson (U.S. Patent No. 4,035,659) in view of Takriti (U.S. Patent No. 6,021,402), which discloses a “computer implemented risk-management system [that] schedules the generating units of an electric utility while taking into consideration power trading with other utilities and the stochastic load on the utility system. The system provides the user with a tool that generates multiple load forecasts and allows the user to vary the fuel price between the different scenarios and the different periods of the planning horizon. The tool allows the user to model accurately the uncertain trading transactions and the changing fuel prices to meet the electric demand of customers at a minimal cost while making the maximum profit possible from power trading” (see the abstract), wherein produced and/or stored energy is sold.

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It would have been obvious, to one having ordinary skill in the art, at the time the instant invention was made, to utilize the power production system of Jeppson in the power distribution mechanism of Takriti, since Takriti teaches a resultant increased efficiency in pricing and risk management.

27. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. §103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR §1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. §103(c) and potential 35 U.S.C. §102(e), (f) or (g) prior art under 35 U.S.C. §103(a).

28. The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure. Applicant is advised to carefully review the cited art, as evidence of the state of the art, in preparation for responding to this Office action.

29. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Maria N. Von Buhr whose telephone number is 571-272-3755. The examiner can normally be reached on M-F (9am-5pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo Picard can be reached on 571-272-3749. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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